

INTERNATIONAL SEARCH REPORT

Int lonal Application No
PCT/GB 03/05368

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D251/54 C07D251/70 C07D403/14 B01D15/08 G01N30/48

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D B01D G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, BEILSTEIN Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/42228 A (LOWIK DENNIS ; LOWE CHRISTOPHER ROBIN (GB); PROMETIC BIOSCIENCES LTD () 14 June 2001 (2001-06-14) cited in the application figure 6; examples 40,41,43,44 figure 7; example 50 figure 3a; example 12 figure 3b; examples 15,18 page 5 - page 6; example 2	1-11
X	GB 2 053 926 A (ATKINSON A; HARVEY M J) 11 February 1981 (1981-02-11) page 2, line 40 - line 45 table 1 Procion Red HE-3B ----- -/--	1,8, 12-15

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

24 March 2004

Date of mailing of the international search report

14/04/2004

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 97/10887 A (NOVONORDISK AS ; AFFINITY CHROMATOGRAPHY LTD (GB); BURTON STEVEN J (GB) 27 March 1997 (1997-03-27) cited in the application claims	1-15
A	WO 00/67900 A (LAWDEN KIM HILARY ; LOWE CHRISTOPHER ROBIN (GB); PROMETIC BIOSCIENCES) 16 November 2000 (2000-11-16) cited in the application claims	1-15
P,X	EP 1 319 643 A (3V SIGMA SPA) 18 June 2003 (2003-06-18) paragraph '0014!; example XII paragraph '0030!; example XV	7,9
X	LÖWIK, D W P M; LOWE, C. R.: "Synthesis of Macrocyclic, Triazine-Based Receptor Molecules" EUROPEAN JOURNAL OF ORGANIC CHEMISTRY, 2001, pages 2825-2839, XP002274796 WEINHEIM compounds 10, 13, 15, 17,22,24,26,39	7,9
X	ZHANG, W; ET AL.: "Orthogonal Convergent Synthesis of Dendrimers Based on Melamine with One or Two Unique Surface Sites for Manipulation" JOURNAL F THE AMERICAN CHEMICAL SOCIETY, vol. 123, no. 37, 2001, pages 8914-8922, XP002274797 scheme 3 compounds 5,7 scheme 4 compounds 11,13	7,9
X	GB 2 149 808 A (SANDOZ LTD) 19 June 1985 (1985-06-19) claim 1 examples 61,91b	7,9
X	EP 0 122 458 A (CIBA GEIGY AG) 24 October 1984 (1984-10-24) claim 1 examples 72-93	7,9
X	US 6 482 255 B1 (LAVERY AIDAN JOSEPH ET AL) 19 November 2002 (2002-11-19) example 4B	7,9
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ZHANG W ET AL: "Synthesis and characterization of higher generation dendrons based on melamine using p-aminobenzylamine. Evidence for molecular recognition of Cu(II)" TETRAHEDRON LETTERS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 42, no. 32, 6 August 2001 (2001-08-06), pages 5355-5357, XP004254958 ISSN: 0040-4039 figure 1; examples 4,6,8	7,9
X	US 4 731 393 A (HOFMANN PETER ET AL) 15 March 1988 (1988-03-15) examples A-E	1
X	EP 0 542 374 A (MINI RICERCA SCIENT TECNOLOG) 19 May 1993 (1993-05-19) claims	1

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 7 (partly)
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 7 (partly)

Claim 7 is so broadly drafted that it encompasses many known substances. Thus, the initial phase of the search revealed a very large number of documents relevant to the issue of novelty. So many documents were retrieved that it is impossible to determine which parts of the claim(s) may be said to define subject-matter for which protection might legitimately be sought (Article 6 PCT). For these reasons, a meaningful search over the whole breadth of the claim(s) is impossible. Consequently, the search with respect to claim 7 has been restricted to:

Compounds in which the spacer X is a diaminoalkylene chain.

Only some illustrative documents have been cited for other parts of claim 7.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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			DE 69220181 D1 10-07-1997
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			ES 2101798 T3 16-07-1997
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